

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An inverter device having two operation modes including a grid-connected operation mode where the inverter device is interconnected with a commercial power system, and an isolated operation mode where the inverter device is independent of said commercial power system and performs an isolated operation, comprising:

an inverter unit converting direct-current power received from a direct-current power supply into alternating-current power;

a control unit controlling an action of said inverter device;

a grid-connected output terminal for outputting the alternating-current power converted by said inverter unit, said grid-connected output terminal being a plug connectable to a commercial receptacle, commercial power from the commercial power system being supplied to the commercial receptacle; and

an isolated operation output terminal provided on a path of a power supply line connecting said inverter unit and said grid-connected output terminal, for outputting said alternating-current power, said isolated operation output terminal being a receptacle for connecting a load ~~is connectable to~~, the load being supplied with said alternating-current power.

2. (Previously presented) The inverter device according to claim 1, further comprising a switch unit provided between said isolated operation output terminal and said grid-connected output terminal on the path of said power supply line, wherein

said control unit brings said switch unit into a non-conduction state when said grid-connected operation mode is terminated.

3. (Previously presented) The inverter device according to claim 2, further comprising a manipulation unit capable of transmitting to said control unit a signal for instructing a start of an operation of said inverter unit, wherein

in a case where said control unit receives said signal from said manipulation unit in said isolated operation mode, when said switch unit is in the non-conduction state, said control unit permits the operation of said inverter unit.

4. (Previously presented) The inverter device according to claim 2, further comprising a current detecting unit provided between said inverter unit and said isolated operation output terminal on the path of said power supply line, for detecting whether or not a current flows therebetween, wherein

said control unit operates said inverter unit for a prescribed period of time when said control unit brings said switch unit into the non-conduction

state, and said control unit continues an operation of said inverter unit when said current detecting unit detects that the current flows for said prescribed period of time.

5. (Previously presented) The inverter device according to claim 1, further comprising a housing having said grid-connected output terminal and said isolated operation output terminal integrally provided therein, wherein said housing includes a plug accommodating unit capable of accommodating said grid-connected output terminal.

6. (Previously presented) The inverter device according to claim 5, further comprising a manipulation unit capable of transmitting to said control unit a signal for instructing a start of an operation of said inverter unit, wherein

said plug accommodating unit has a plug accommodation detecting unit detecting whether or not said grid-connected output terminal is accommodated in the plug accommodating unit, and

in a case where said control unit receives said signal from said manipulation unit in said isolated operation mode, when said plug accommodation detecting unit detects that said grid-connected output terminal is accommodated in said plug accommodating unit, said control unit permits the operation of said inverter unit.

7. (Previously presented) The inverter device according to claim 6, further comprising a current detecting unit provided between said inverter unit and said isolated operation output terminal on the path of said power supply line, for detecting whether or not a current flows therebetween, wherein

said control unit operates said inverter unit for a prescribed period of time when said plug accommodation detecting unit detects that said grid-connected output terminal is accommodated in said plug accommodating unit, and said control unit continues the operation of said inverter unit when said current detecting unit detects that the current flows for said prescribed period of time.

8. (New) An inverter device, comprising:

a power converting unit structured to convert direct-current power from a direct-current power supply into alternating-current power;

a load-connecting receptacle electrically connected to said power converting unit via a power supply line and structured to deliver said alternating-current power from said power converting unit to an isolated load when said isolated load is connected to said load-connecting receptacle;

a plug structured to be connectable into a household receptacle and structured to deliver said alternating-current power from said power converting unit to a commercial power system connected to said household receptacle

and/or to a household load when said household load is connected to said household receptacle; and

an interconnection relay provided in a path of said power supply line between said load-connecting receptacle and said plug, wherein

when said interconnection relay is in a conduction state, said inverter device is in a grid-connected operation mode in which said alternating-current power from said power converting unit is available to both said load-connecting receptacle and said plug, and

when said interconnection relay is in a non-conduction state, said inverter device is in an isolated operation mode in which said alternating-current power from said power converting unit is available only to said load-connecting receptacle.

9. (New) The inverter device according to claim 8, wherein said power converting unit comprises:

an inverter structured to receive said direct-current power from said direct-current power supply, convert said direct-current power into said alternating-current power, and output said alternating-current power; and

a control unit structured to control said interconnection relay to

put said interconnection relay into said conduction state when said inverter device is in said grid-connected operation mode, and

put said interconnection relay into said non-conduction state when said inverter device is in said isolated operation mode.

10. (New) The inverter device according to claim 9, wherein said control unit is structured to

receive a selection indicating whether said inverter device is to start in said grid-connected operation mode or in said isolated operation mode,

put said interconnection relay in said conduction state when said selection indicates that said inverter device is to start in said grid-connected operation mode, and

put said interconnection relay in said non-conduction state when said selection indicates that said inverter device is to start in said isolated operation mode.

11. (New) The inverter device according to claim 10, wherein said selection is received as a signal from a remote controller.

12. (New) The inverter device according to claim 10, wherein said control unit is structured to prevent said inverter from outputting said alternating-current power to said load-connecting receptacle until said interconnection relay is in said non-conduction state when said selection indicates that said inverter device is to start in said isolated operation mode.

13. (New) The inverter device according to claim 9, wherein when said inverter device is in said grid-connected operation mode, said control unit is structured to

determine whether a system voltage of said household receptacle is a normal system voltage,

put said interconnection relay into said conduction state when said system voltage is normal, and

put said interconnection relay into said non-conduction state when said system voltage is abnormal.

14. (New) The inverter device according to claim 13, wherein said plug is structured to provide a signal indicative of said system voltage of said household receptacle to said control unit.

15. (New) The inverter device according to claim 13, wherein when said system voltage is abnormal, said control unit is structured to

determine whether said isolated load is connected to said load-connecting receptacle,

control said inverter to output said alternating-current power to said load-connecting receptacle when said isolated load is connected, and

prevent said inverter from outputting said alternating-current power to said load-connecting receptacle when said isolated load is not connected.

16. (New) The inverter device according to claim 15, wherein
said power converting unit further comprises a current detecting unit
provided in a path between said inverter and said load-connecting receptacle,
and

said control unit is structured to determine whether said isolated load is
connected to said load-connecting receptacle by operating said inverter for a
predetermined amount of time, and detecting whether there is current flow in
said path between said inverter and said load-connecting receptacle when said
inverter is operated.

17. (New) The inverter device according to claim 9, wherein said power
converting unit further comprises a protection relay provided in a path between
said inverter and said load-connecting receptacle, wherein

when said protection relay is in a conduction state, said inverter and said
load-connecting receptacle are electrically connected,

when said protection relay is in a non-conduction state, said inverter is
electrically isolated from said load-connecting receptacle, and

said control unit structured to put said protection relay into said
conduction state when said inverter device is in said grid-connected operation
mode, and to put said interconnection relay into said non-conduction state
when said inverter device is in said isolated operation mode.

18. (New) An inverter device, comprising:

a power converting unit structured to convert direct-current power from a direct-current power supply into alternating-current power;

a plug accommodating module structured to be connectable to in which a load-connecting receptacle and a plug are integrated and electrically connected to each other therein on a common power supply line therein, in which

said load-connecting receptacle is structured to deliver said alternating-current power from said power converting unit to an isolated load when said isolated load is connected to said load-connecting receptacle, and

said plug is structured to be connectable into a household receptacle and structured to deliver said alternating-current power from said power converting unit to a commercial power system connected to said household receptacle and/or to a household load when said household load is connected to said household receptacle; and an output relay provided in a path of said common power supply between said power converting unit and said plug accommodating unit, wherein

when said output relay is in a conduction state, said inverter device is in a grid-connected operation mode in which said alternating-current power from

power converting unit is available to both said load-connecting receptacle and said plug, and

when said output relay is in a non-conduction state, said inverter device is in an isolated operation mode in which said alternating-current power from power converting unit is not available to both said load-connecting receptacle and said plug.

19. (New) The inverter device according to claim 18, wherein said power converting unit comprises:

an inverter structured to receive said direct-current power from said direct-current power supply, convert said direct-current power into said alternating-current power, and output said alternating-current power to said load-connecting receptacle; and

a control unit structured to control said output relay to

put said output relay into said conduction state when said inverter device is in said grid-connected operation mode, and

put said output relay into said non-conduction state when said inverter device is in said isolated operation mode.

20. (New) The inverter device according to claim 19, wherein said control unit is structured to

determine whether said plug is accommodated within said plug
accommodating module so as to prevent electric shock to a user touching said
plug, and

prevent said inverter from outputting said alternating-current power to
said load-connecting receptacle until said plug is accommodated therein.